



Creating Audio Files For Use In: *Podcasts*

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Audacity is free software designed for recording and editing audio files. It is available for download from the Internet at:
<http://audacity.sourceforge.net/>

Audacity tutorial found at <http://audacity.sourceforge.net/manual-1.2/index.html>

Digital Audio Formats

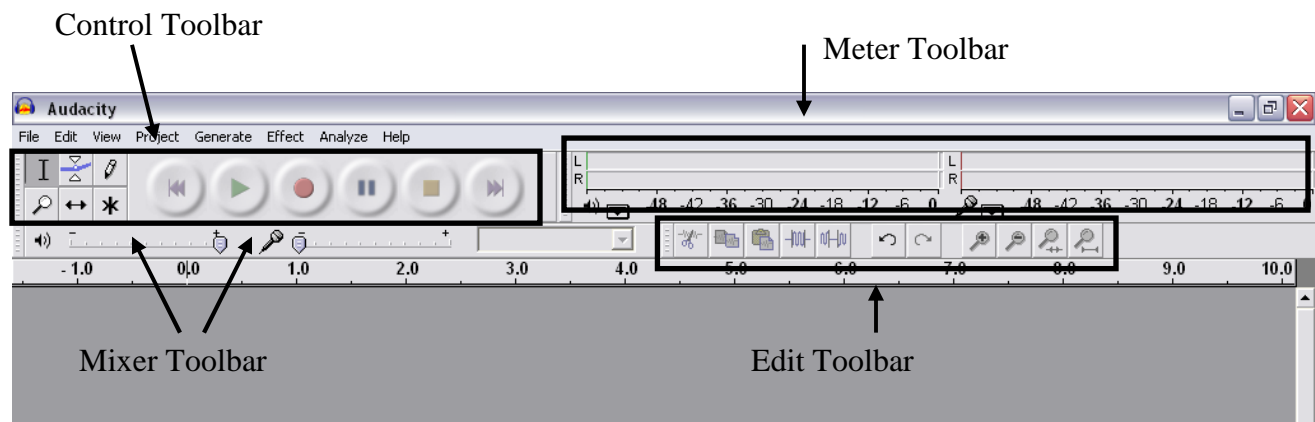
Audacity File Formats:

- ◆ **aup (Audacity Project Format)** - Audacity projects are stored as an AUP file. This format is not compatible with any other audio programs, so when you are finished working on a project and you want to be able to edit the audio in another program, select Export.
- ◆ **wav (Windows Wave Format)** - This is the default uncompressed audio format on Windows, and is supported on almost all computer systems. Audacity can read and write this format.
- ◆ **aiff (Audio Interchange Audio Format)** - This is the default uncompressed audio format on the Macintosh, and it is supported by most computer systems, but it is not quite as common as the WAV format. Audacity can read and write this format.
- ◆ **au (Sun/Next Audio File)** - This format was one of the first audio formats supported by Web browsers, and it is still often used for short sound effects where quality is not as important. Audacity can read this format.
- ◆ **ircam – (Institut de Recherche et Coordination Acoustique/Musique)** - This is a very general file format that is commonly used by computer music researchers. Audacity can read this format.
- ◆ **mp3** - This is a compressed audio format that is a very popular way to store music. It can compress audio by a factor of 10:1 with little degradation in quality. Audacity can both import and export this format, but users will need to download and install LAME 3 encoder .
- ◆ **ogg (Ogg Vorbis)** - This is a new compressed audio format that was designed to be a free alternative to MP3 files. Ogg Vorbis files are not as common, but they are about the same size as MP3 with better quality and no patent restrictions. Audacity can import and export this format.

Podcast audio formats:

- ◆ mp3 (most common)
- ◆ mp4 (mpeg 4, QuickTime or Windows Media Player will play)
- ◆ m4a (mpeg 4 offshoot)

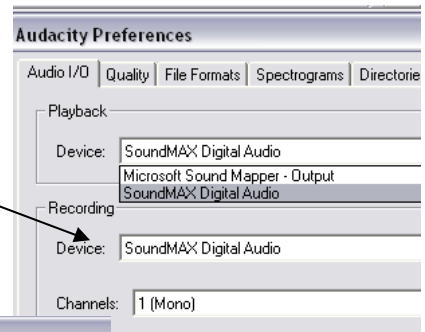
The Audacity Toolbars



Getting Ready to Record

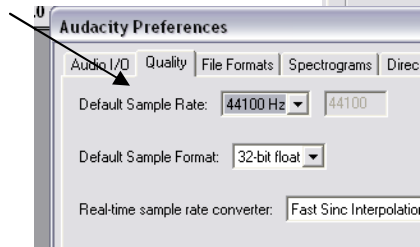
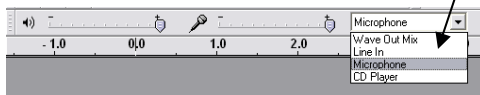
Setting the Preferences: You can use Audacity's default settings or you can tweak the settings to improve the quality of your recordings

1. Select *Edit, Preferences*
2. On the *Audio I/O* tab, choose an audio driver other than the one that comes with Windows. (ie. SoundMax Digital Audio)
3. Click the *Quality* tab and change the Sample Rate to 44100 HZ.



Selecting the Input Device:

- ◆ Select the input device, microphone.



The Recording Phase:

- ◆ Make sure your microphone is plugged in
- ◆ Press the record button
- ◆ Audacity will automatically make a new audio track
- ◆ Press the stop button to end your recording



During Recording:

- ◆ A sound wave trace of your voice is produced
- ◆ The meter toolbar will move to the sound of your voice
- ◆ The timer positions will be counting

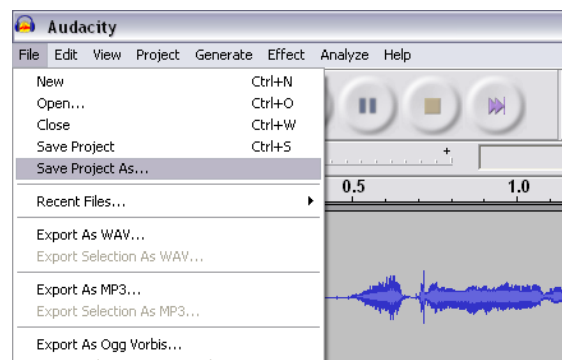
If You Make A Mistake During a Long Recording:

- ◆ Do not stop recording (unless you really have to)
- ◆ Remain silent for about 3 seconds (This produces a flat-line to help edit later)
- ◆ Press the *Pause* button & compose yourself
- ◆ Continue recording by repeating the section leading up to the mistake

Saving Your File As A Project

- ◆ Select *File, Save Project As...*
- ◆ Locate the folder where you want to save
- ◆ Name your file
- ◆ Press OK


****Note – The Audacity Project format can only be read by Audacity. Saving this way allows you to edit your file before exporting it to a more usable format.**

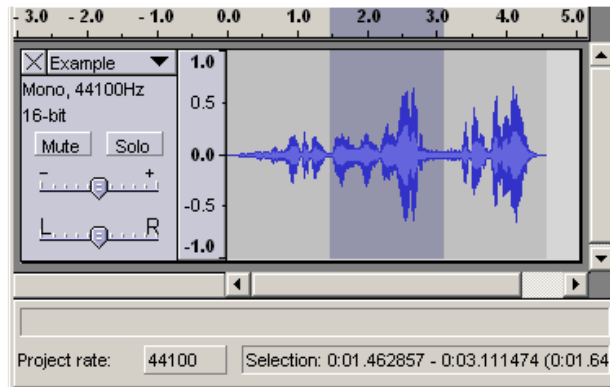


Editing Your Audio File

You must select a portion of your audio file in order to edit (cut, copy, duplicate or silence) it.

Make a Selection

- ◆ Click the selection tool 
- ◆ Move your mouse point to an area of the wav file graphic
- ◆ Press and hold the left mouse button while you drag the mouse to mark an area
- ◆ Press the spacebar to listen to the audio in the marked area
- ◆ Note, that even though you can mark an area larger than or extending beyond the actual audio clip in the track, the operations will only work on the actual clip. Playback however will work outside the clip.



- ◆ To **extend** or **contract** your selection, hold down the SHIFT button and click on the area you wish your selection to extend or contract to.
- ◆ If you click at a spot that is on the right hand side from the middle of the current selection, you will set the right hand boundary of your new selection.

Editing the Selection:

Cutting:

- ◆ Select **Cut** from the **Edit** menu or press CTRL+X

Before the cut

After the cut



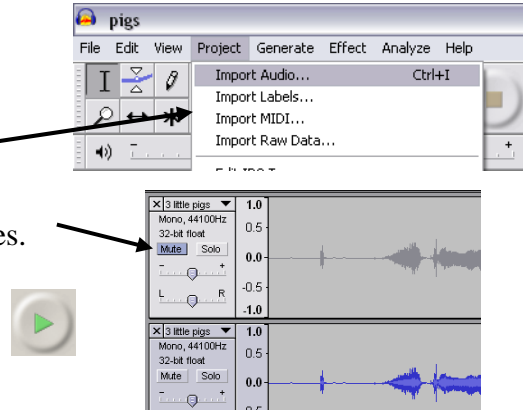
- ◆ To undo this operation, select **Undo** in the **Edit** menu or press CTRL+Z

Copying:

- ◆ Select **Copy** from the **Edit** menu to copy the selection to the clipboard.
- ◆ You can then paste that data back in to any track by clicking where you want this audio to be inserted and select **Paste** in the **Edit** menu, or press CTRL+V.

Working With Tracks

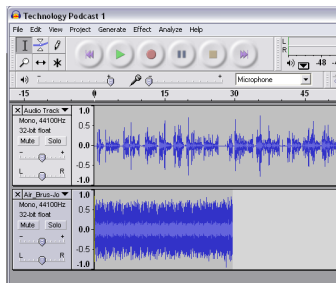
- ◆ Audacity always records to a new track
- ◆ You can import other sound files to create your desired output (background music, sounds, etc.)
 - Project, Import Audio
- ◆ You can mute individual tracks for editing purposes.
- ◆ To hear the tracks, press the green play button.



Importing Audio

You may wish to add some background music or another audio effect to your file. You will need to have the file stored on your computer.

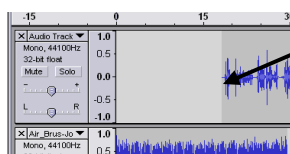
- ◆ Select **Project, Import Audio**
- ◆ Browse your computer for the file you wish to import



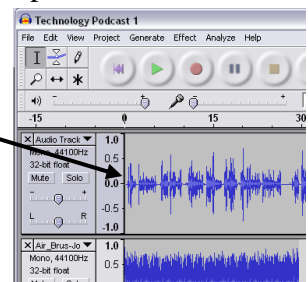
The imported file will appear on the new track. Take note of how long it is in comparison to your audio file. You may need to edit your imported file.

The second track in the diagram to the left contains an intro loop. In order to make room for the intro, the audio track must be split and moved to the right. To do this:

1. Position your cursor at the beginning of the audio track
2. Select the Time Shift tool
3. Using the Time Shift tool hold the cursor over the audio track recording, click and hold the left mouse button down and move the recording to make room for track two.



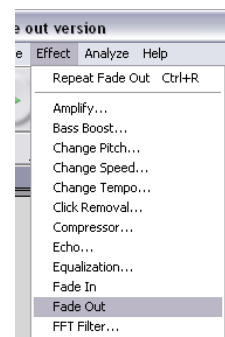
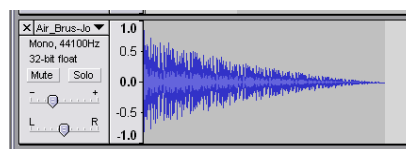
audio track recording, click and hold the left mouse button down and move the recording to make room for track two.



Fade Out Effect

Adding a fade out:

1. Select the portion of the track that you want to have fade out
2. Select **Effect, Fade Out**
3. Your sound wave will turn into a cone shape

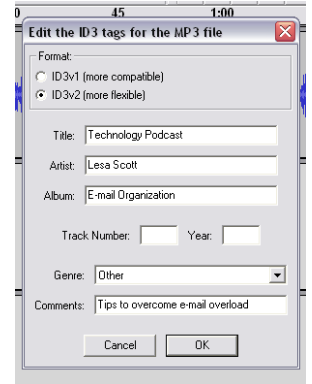


Export Your Audio File

MP3 Format:

Note - You should have downloaded and installed the lame_enc.dll encoder. Once the file is on your computer your recording can be converted to mp3 format

1. On the File Menu select *Export as mp3*.
2. Take note of the folder location, and give your file a name. Select OK.
3. During the save process, you will be asked to personalize the file by entering ID 3 tags. Entering information into this dialogue box is optional and only appears when exporting as mp3.



WAV Format:

1. On the File Menu select *Export as wav*.
2. Take note of the folder location, and give your file a name.
3. Select OK.